

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
14 October 2004 (14.10.2004)

PCT

(10) International Publication Number
WO 2004/088649 A2

(51) International Patent Classification⁷: G11B 7/247, C09B 45/20, 45/22, 56/00

(21) International Application Number:

PCT/EP2004/050206

(22) International Filing Date: 25 February 2004 (25.02.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
03100908.7 4 April 2003 (04.04.2003) EP
03102687.5 2 September 2003 (02.09.2003) EP

(71) Applicant (for all designated States except US): CIBA SPECIALTY CHEMICALS HOLDING INC. [CH/CH]; Klybeckstrasse 141, CH-4057 Basel (CH).

(72) Inventors; and

(75) Inventors/Applicants (for US only): ADAM, Jean-Marie [FR/FR]; 60 D, rue de Village-Neuf, F-68128 Rosenau (FR). AESCHLIMANN, Peter [CH/CH]; Sandweg 16, CH-4123 Allschwil (CH). BACHER, Jean-Pierre [FR/FR]; 9, rue des Vergers, F-68220 Buschwiller (FR). BUDRY, Jean-Luc [CH/CH]; 52, rue des Oeuches, CH-2842 Rossemaison (CH). LEHMANN, Urs [CH/CH]; Unterer Rheinweg 50, CH-4057 Basel (CH). MORTON, Colin [GB/CH]; Breisacherstrasse 30, CH-4057 Basel (CH). SCHMIDHALTER, Beat [CH/CH]; Dahlienstrasse 25, CH-4416 Bubendorf (CH). SPAHNI, Heinz [CH/CH]; Eggstrasse 23, CH-4402 Frenkendorf (CH).

(74) Common Representative: CIBA SPECIALTY CHEMICALS HOLDING INC.; Patent Department, Klybeckstrasse 141, CH-4057 Basel (CH).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

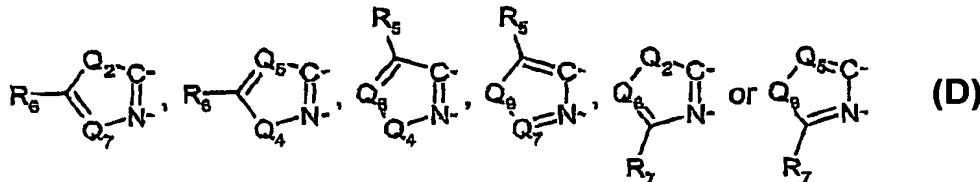
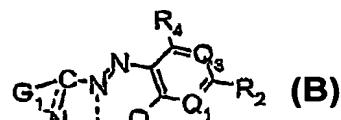
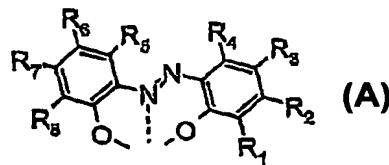
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: HIGH-CAPACITY OPTICAL STORAGE MEDIA



WO 2004/088649 A2

(57) Abstract: The invention relates to an optical recording medium comprising a substrate, a reflecting layer and a recording layer, wherein the recording layer comprises a compound of formula $[L_1M_r-4L-2]_0 [A^m]_p [Z^{n+}]_q (I)$, $[L_1M_{r-3}L_{-3}]_0 [A_m]^p [Z^{n+}]_q (II)$ or $[L_3M^{r-2}L_{-4}]_0 [A^m]_p [Z^{n+}]_q (III)$, or where applicable a mesomeric or tautomeric form thereof, wherein L_1 and L_2 are each independently of the other and L_3 and L_4 are each independently of the other wherein Q_1 is CR_1 or N , Q_2 is SO_2S , NR_{10} or $Q_5=Q_8$, Q_3 is CR_3 or N , Q_4 is O , S , NR_{10} or $Q_7=Q_8$, Q_5 is CR_5 or N , Q_6 is CR_6 or N , Q_7 is CR_7 or N , Q_8 is CR_8 or N , and Q_9 is O , S , NR_{10} or $Q_6=Q_8$; M^r , A^m , Z^{n+} , R_2 , R_9 are as defined in the claims.